

## REMOTE IDENTIFICATION OF CLIENT AND DNS PROXY IP ADDRESSES

## ABSTRACT OF THE DISCLOSURE

A network operator identifies an address of a network element used by a particular client to obtain IP addresses. The client sends a test message to a test URL  
5 which includes a unique host name unknown to the client or network element. The network element accesses an authoritative server, which records the IP address of the requesting network element and resolves the host name in the test URL to a test IP address. The server records an IP address of the client when the client subsequently sends a message directly to the test IP address. In an alternative embodiment, another  
10 network node generates a redirect command, which incorporates the client IP address in a test URL, to allow for single-message determination of the network element and client IP addresses by the authoritative server. In both embodiments, user unique test URLs may be generated to allow the network operator to assist many users.

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